



AACE/ACE

STATEMENT ON THE USE OF A1C FOR THE DIAGNOSIS OF DIABETES

February 2010— The American Association of Clinical Endocrinologists (AACE) and the American College of Endocrinology (ACE) have evaluated the role of A1c for the diagnosis of type 2 diabetes (diabetes). The American Diabetes Association (ADA) 2010 Clinical Practice Recommendations endorse the use of A1c of 6.5% or higher as the primary criterion for the diagnosis of diabetes.

The rationale for the use of A1c for diagnosis is based on data showing that retinopathy occurs in individuals with an A1c $\geq 6.5\%$ at approximately the same rate as in individuals who are diagnosed based on the current fasting and post-challenge glucose criteria. A 10% risk for retinopathy has historically served as the bench mark for diagnosing the presence of diabetes.

The use of A1c for the diagnosis of diabetes has several advantages. It does not require the patient to be fasting, can be done at any time that a visit is scheduled, is simpler to perform than the 2 hr oral glucose test, and is less dependent on the patient's health status at the moment of the blood draw. However, use of A1c $\geq 6.5\%$ identifies approximately 20% fewer people with diabetes than do existing criteria based on fasting plasma glucose and oral glucose tolerance tests.

AACE/ACE support the ADA recommendations for use of a confirmed A1c as an available option to diagnose diabetes, with the following recommendations:

1. A1c should be considered as an additional optional criterion, not as the primary criterion.
2. AACE/ACE suggest using traditional glucose criteria for diagnosis when feasible.
3. A1c is not recommended for diagnosing type 1 diabetes.
4. A1c is not recommended for diagnosing gestational diabetes.
5. A1c may be misleading in several ethnic populations (e.g. African-Americans).
6. A1c may be misleading in the setting of various hemoglobinopathies, iron deficiency, hemolytic anemias, thalassemias, spherocytosis, and severe hepatic and renal disease.
7. AACE/ACE endorse using only standardized, validated assays for A1C testing.

AACE/ACE do not endorse A1c criteria for pre-diabetes or for those at risk for diabetes. AACE/ACE do support an A1c of 5.5-6.4% as a screening test for pre-diabetes if it leads to measurement of fasting glucose or a glucose tolerance test for diagnosis.

The AACE/ACE position statement is based on available data as of February 2010 and may be amended as new data become available.

¹ Diabetes Care, January 2010, Vol. 33:Supplement 1; doi:10.2337

² Centers for Disease Control and Prevention, National Health and Nutrition Examination Survey; 2005-2006 (NHANES)